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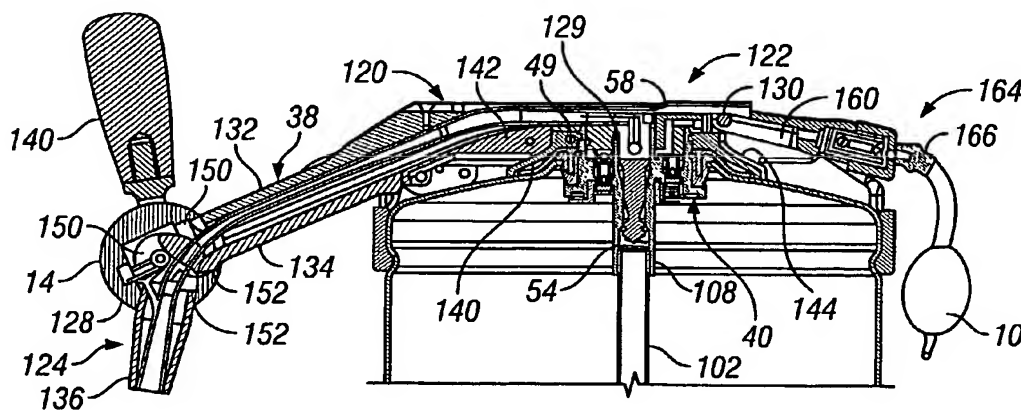
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(54) Title: DISPENSER HAVING A CONDUIT WITH A FLOW RESTRICTOR



(57) Abstract: The present invention relates to a conduit for conducting gasified liquid, which has a flow restrictor arranged in in-line relation therewith. The restrictor itself comprises an at least one aperture (although two or more can be used in series), with each such being adapted to pass the gasified liquid flowing through the conduit and across a pressure drop from a higher-pressure upstream side of the aperture to a lower-pressure downstream side of the aperture. The aperture is operable to moderate the rate of change in pressure over a transitional pressure drop to mitigate the formation of localized pressures below a critical pressure at which off-gassing from the carbonated liquid results in substantial foam formation. The conduit may take the form of a dispensing tube for use in dispensing an alcoholic beverage from a keg, the tube having a flexible wall deformable under the influence of a restricting actuator to control the partial collapse of the wall and thereby form the restrictor. The tube or flow diameter downstream of the restrictor only gradually or slowly increases.

## INTERNATIONAL SEARCH REPORT

In ☐ National Application No

T/IB 03/05411

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 B67D1/14 B67D1/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B67D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 031 913 A (APELLANIZ RAMON) 28 June 1977 (1977-06-28)  the whole document	1,2,6-9, 14,15, 17-20
X	EP 1 243 548 A (HEINEKEN TECH SERVICES) 25 September 2002 (2002-09-25)	44-56
Y	column 6, line 1 -column 8, line 49; figures 1-6	21-24, 26-31
Y	WO 00/03944 A (TIMP PIET HEIN WILLEM ;BAAL PATRICK MICHAEL VAN (NL); HEINEKEN TEC) 27 January 2000 (2000-01-27) page 13, line 12 -page 17, line 24; figures 1-7,11-18	21-24, 26-31
A	GB 790 140 A (GASKELL & CHAMBERS LTD) 5 February 1958 (1958-02-05)  -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB 03/05411

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-20

A conduit with flow restrictor

2. Claims: 21-32

A dispenser

3. Claims: 33-57

A tap

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International Application No

PCT/IB 03/05411

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